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Product Evaluation

SHU243 | 0322

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: SHU-243 **Effective Date:** March 1, 2022

Re-evaluation Date: March 2026

Product Name: QOM3-AL8 Roll-Up Hurricane Shutters

Manufacturer: QMI Security Solutions

1661 Glenlake Ave Itasca, IL 60143 (866) 980-1750

General Description:

The QOM3-AL8 Roll-Up Hurricane Shutters are a permanently mounted impact protective system. The roll-up shutter components are manufactured of 6063-T6 extruded aluminum unless otherwise noted in the design drawings. The slats roll-up into a shutter housing located at the top of the assembly.

Limitations:

Design Drawings:

"QOM3-AL8 Roll-Up Hurricane Shutters;" manufactured by QMI Security Solutions; Drawing No. 20-32431; Sheets 1–30 of 30; dated February 22, 2022; signed, sealed, and dated February 23, 2022, by Frank L. Bennardo, P.E. The stated drawings will be referred to as approved drawings in this report.

Roll-Up Slat End Retention:

• End retention, screw in each slat

Roll-Up Shutter Configurations:

- Single unit without mullions
- Consecutive single units with mullions

Mounting Conditions:

- Wall mount
- Inside/trapped mount
- Build-out mount

Wall Construction: The roll-up shutters may be mounted to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete (minimum compressive strength required specified in drawings)
- Grout-filled block concrete masonry units (CMU);
- Hollow block concrete masonry (CMU)
- Wood (minimum Southern Yellow Pine dimension lumber, S.G. = 0.55)
- Steel (minimum 1/8" thick; A36)
- Aluminum (minimum 6063-T6, minimum 1/8" thick)

Allowable Design Pressure: The allowable design pressure is a function of slat span, mounting condition, anchors, mullion span, and substrate. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is +/-246.7 psf.

Maximum Slat Span: The maximum allowable slat span is 236". Refer to the approved drawings for allowable slat spans for specific installation configurations.

Maximum Width: Shutter width is unlimited as long the allowable slat span is not exceeded. Refer to the approved drawings for multi-span construction requirements.

Maximum Height: The maximum shutter height without mullions is 21'-0". The maximum shutter height with mullions is equal to the maximum mullion span. Refer to the approved drawings for mullion schedules.

Minimum Separation from Glass: The minimum separation from glass is a function of the slat span. The minimum glazing separation is only required when the roll-up shutters are used in essential facilities as defined in ASCE 7. Refer to separation distance requirements in tables in the approved drawing. On essential facilities, the shutters may not be installed below a height of 30 feet on structures located in Wind Zone 3 and may be used at any height on structures used in Wind Zone 2.

Product Identification: The roll-up shutter assemblies have a permanently mounted label that indicates the manufacturer (QMI, 1661 Glenlake Ave, Itasca, IL 60143); the name of the product (QOM3-AL8 Roll-Up Hurricane Shutter); the missile level (Missile Level D; Large Missile Impact Rated); and the test standards: ASTM E 330, ASTM E 1886, ASTM E 1996, TAS 201, TAS 202, TAS 203.

Compliance: The shutter assemblies passed test criteria equivalent to ASTM E 330-14, ASTM E 1886-13a, and ASTM E 1996-14a.

Impact Resistance: This roll-up shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The assemblies passed Missile Level D specified in ASTM E 1996-14a. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded. Refer to 'Minimum Separation from Glass' section in this evaluation report for installations on essential facilities.

Installation Instructions:

General Installation Requirements: The roll-up shutters must be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. Copies of the approved drawings must be available on the jobsite during inspection of the shutter assembly.

Anchorage: The roll-up shutters must be anchored to the structure in accordance with the approved drawings.

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.